

Serial No. 10/627,530

In the Drawings:

The attached sheet of Formal Drawings replace the previous drawings.

REMARKS

The Office Action mailed July 12, 2004, has been received and reviewed. Claims 1 through 15 are currently pending in the application. Claims 1 through 15 stand rejected. Applicants have canceled claim 3, amended claims 1, 2 and 4 through 15, and added new claims 16 through 18. Support for the amendments and the new claims may be found in paragraphs [0009], [0014], [0016], [0026], [0029], [0032] and [0040] of the as-filed specification. Reconsideration of the application as amended herein is respectfully requested.

Amendment to the Specification

Paragraph [0016] has been amended herein to make appropriate reference to the drawings.

35 U.S.C. § 112 Claim Rejections

Claims 8 through 11 and 15 stand rejected under 35 U.S.C. § 112, second paragraph, as assertedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants respectfully submit these claims are now definite, as hereinafter set forth.

The terms “the entry seal” and “exit seal” were asserted in the Office Action to lack proper antecedent basis. Claim 8 has been amended herein to depend from claim 4, to provide appropriate antecedent basis. Claims 9 through 11 depend from claim 8 and are similarly now definite. The term “entry end seal” was noted as confusing in the Office Action. Claim 15 has been amended herein to remove this term.

35 U.S.C. § 102 Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 6,660,086 to Prince et al.

Claims 1, 5 and 6 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Prince et al. (U.S. Patent No. 6,660,086) (“Prince”). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found,

either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Office Action states that Prince “teaches the design as shown in FIG. 9 of a system for applying a composition to a non-equidimensional substrate, which is comprised of a processing chamber,” which “processing chamber is capable [of] accepting a coating composition with the scope of the claim.” (Office Action at page 3). Applicants initially note that at column 1, lines 44 to 53, Prince states that:

Solvent-based carriers and coating materials incur the added expense of the solvent required to carry the coating material. The drying stages typically require extra time, thus lowering through-put for assembly line finish work. Dry coating and heating of items to cure the paint coating also add to the finish time required, which further reduces throughput.

Accordingly, what is needed is a system and method for applying a coating to a substrate surface that eliminates the use of solvents, electrostatic adhesion, final heating stages, and the like.

Prince thus teaches a system that avoids the use of a solvent or other carrier fluid for carrying the coating. By contrast, claim 1 includes the elements of a processing chamber “configured to accept a treatment mixture into the chamber during movement of the non-equidimensional substrate through the processing chamber, where the treatment mixture comprises the modifying agent in a carrier medium selected from the group consisting of a supercritical fluid, a near-critical fluid, a superheated fluid, a superheated liquid, and a liquefied gas, such that the modifying agent is applied to the non-equidimensional substrate upon contact between the treatment mixture and the non-equidimensional substrate.”

With respect to FIG. 9, Prince states that:

In an alternative embodiment, as shown in FIG. 9, the perimeter of die 56 can include a pliant liner that is able to conform to the substrate surface should the surface of the substrate have a non-uniform profile. This allows apparatus 10 to apply coating material uniformly across a surface in a three dimensional manner. Where the perimeter of die 56 is fixed, the cross sectional perimeter of the substrate must be fixed at all times as it passes through the die. For example, the liner can include a pliable rubber or polyvinyl material that can give to conform to

the changing profile of the substrates as it passes through the die. Also, the liner can include a pliant bladder or balloon-like device that has a rather large surface area in comparison to the hard edge of a fixed perimeter application die 56. The bladder or balloon is filled with either air or liquid and causes the exterior surface of the bladder to cover the substrate and coat the surface completely, whether the surface has a uniform or varying profile. (Prince, Column 9, lines 8 to 24).

Prince thus discloses a coating apparatus where a liner directly contacts a substrate, applying a coating thereto, without the use of a solvent or other carrier fluid. Accordingly, it does not disclose the elements of claim 1 and this rejection should be withdrawn.

Anticipation Rejection Based on U.S. Patent No. 5,709,910 to Argyle et al.

Claims 1 through 13 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by Argyle et al. (U.S. Patent No. 5,709,910). Claim 3 is canceled rendering this rejection moot as to it. Applicants respectfully traverse this rejection with respect to the remaining claims, as hereinafter set forth.

As amended, claim 1 includes the elements of “an adjustable entry seal in communication with the processing chamber, the adjustable entry seal adjustable to various sizes to accept various non-equidimensional substrates for modification.” At page 5, the Office Action states “Argyle et al fails to teach the entry end seal and exit seal are adjustable.” Accordingly, it is respectfully requested that amended claim 1, with the claims dependent therefrom be allowed.

Anticipation Rejection Based on U.S. Patent No. 3,650,042 to Boerger et al.

Claims 1, and 8 through 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Boerger et al. (U.S. Patent No. 3,650,042). As noted previously herein, amended claim 1 includes the elements of “an adjustable entry seal in communication with the processing chamber, the adjustable entry seal adjustable to various sizes to accept various non-equidimensional substrates for modification.” These elements are not present in Boerger et al. Accordingly, it is requested that amended claim 1, with claims 8-11 dependent therefrom be allowed.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 5,709,910 to Argyle et al. in view of U.S. Patent No. 2,545,576 to Godley

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Argyle et al. (U.S. Patent No. 5,709,910) in view of Godley (U.S. Patent No. 2,545,576). Applicants respectfully traverse this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

The Office Action states that "Argyle et al is applied for the reasons noted above." (Office Action at page 5). As discussed previously herein, amended claim 1 includes the elements of "an adjustable entry seal in communication with the processing chamber, the adjustable entry seal adjustable to various sizes to accept various non-equidimensional substrates for modification," which is not taught or suggested in Argyle et al. Godley similarly fails to teach or suggest these elements. Accordingly, it is requested this rejection be withdrawn and claim 14, dependent from claim 1, be allowed.

Obviousness Rejection Based on U.S. Patent No. 3,650,042 to Boerger et al. in view of U.S. Patent No. 2,545,576 to Godley

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Boerger et al. (U.S. Patent No. 3,650,042) in view of Godley (U.S. Patent No. 2,545,576). The Office Action states that "Boerger et al is applied for the reasons noted above." (Office Action at page 6). As discussed previously herein, amended claim 1 includes the elements of "an adjustable

entry seal in communication with the processing chamber, the adjustable entry seal adjustable to various sizes to accept various non-equidimensional substrates for modification,” which is not taught or suggested in Boerger et al. Godley similarly fails to teach or suggest these elements. Accordingly, it is requested this rejection be withdrawn and claim 14, dependent from claim 1, be allowed.

Obviousness Rejection Based on U.S. Patent No. 5,709,910 to Argyle et al. in view of U.S. Patent No. 2,965,067 to Amelotte et al.

Claim 15 stands rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Argyle in view of Amelotte et al. (U.S. Patent No. 2,965,067) (“Amelotte”). Applicants respectfully traverse this rejection, as hereinafter set forth. The Office Action states that:

Argyle et al fails to teach the entry end seal and exit seal are adjustable. However, it would have been obvious to provide adjustable end seals at the end of the Argyle et al chamber such as taught by Amelotte et al for the taught advantage of preventing leakage of air into the treatment system. (Office Action at pages 5 to 6).

Beginning at column 2, line 8 Amelotte explains:

Basic to the seal apparatus of this invention is a circular configuration of the substrate. The configuration is provided by holding the moving substrate in contact with a freely rotatable seal cylinder at the point where sealing is to occur.

As amended, claim 1 includes the elements of “an adjustable entry seal in communication with the processing chamber, the adjustable entry seal adjustable to various sizes to accept various **non-equidimensional substrates** for modification,” and dependent amended claim 15 further includes the elements of “the exit seal is adjustable to various sizes for accepting various **non-equidimensional substrates** for modification.” Claim 15 thus includes elements not taught or suggested in Amelotte or Argyle. Accordingly, it is requested this rejection be withdrawn.

ENTRY OF AMENDMENTS

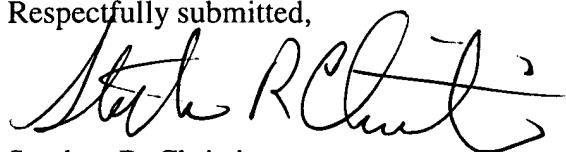
The amendments to the claims herein should be entered by the Office because the amendments are supported by the as-filed specification and drawings and do not add any new

matter to the application. Further, the amendments do not raise new issues or require a further search.

CONCLUSION

All pending claims are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Office determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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Date: 120 Oct 2004

SRC/dlm

Attachment: Formal Drawings